

What is Claimed is:

1. An exhaust system in a radiation gas range comprising:
 - a housing having exhaust openings in a rear part for discharge of exhaust gas;
 - a sheet of glass on top of the housing for transmission of radiant heat to a heating object placed thereon;
 - front and rear burner housings in contact with a bottom surface of the sheet of glass for forming spaces to burn mixed gas therein;
 - front radiation gas burners in lower parts of the front burner housings respectively each for burning mixed gas at a surface of a radiation body to generate a radiation energy;
 - rear radiation gas burners in lower parts of the front burner housings 32 respectively each for burning mixed gas at a surface of a radiation body to generate a radiation energy; and
 - an exhaust duct in lower parts of, and in communication with the front and/or rear burner housings for discharging exhaust gas from the front and rear radiation burners toward the exhaust openings.
2. The exhaust system as claimed in claim 1, wherein two sets of each of the front, and rear burner housings, and the front, and rear radiation gas burners are provided, and the exhaust duct is arranged at a central part of the housing to pass between the front radiation gas burners and between the rear radiation gas burners.
3. The exhaust system as claimed in claim 2, further comprising a partition wall at a central part of the exhaust duct, to divide the exhaust duct into two parts, one of which is in communication with the front burner housing and the rear burner housing on

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a left side, and the other one of which is in communication with the front burner housing and the rear burner housing on a right side.

4. The exhaust system as claimed in claim 2, wherein the exhaust duct includes
5 two separate exhaust ducts of a left exhaust duct in communication with the front burner housing and the rear burner housing on a left side, and a right exhaust duct in communication with the front burner housing and the rear burner housing on a right side.

5. The exhaust system as claimed in claim 1, wherein the exhaust duct includes;
10 a first exhaust duct in communication with the front burner housings, and
a second exhaust duct inside of, and separate from the first exhaust duct in communication with the rear burner housings.

6. The exhaust system as claimed in claim 5, wherein the second exhaust duct
15 has a sectional area smaller than 1/2 of a sectional area of the first exhaust duct.

7. The exhaust system as claimed in claim 1, wherein the exhaust duct includes;
a first exhaust duct in communication with the front burner housings, and
second exhaust ducts separate from the first exhaust duct in communication
20 with the rear burner housings, individually.

8. An exhaust system in a radiation gas range comprising:
a housing having exhaust openings in a rear part for discharge of exhaust gas;
a sheet of glass on top of the housing for transmission of radiant heat to a
25 heating object placed thereon;

two front burner housings, and two rear burner housings in contact with a bottom surface of the sheet of glass for forming spaces to burn mixed gas therein;

two front radiation gas burners, and two rear radiation gas burners in lower parts of the front, and rear burner housings respectively each for burning mixed gas at a 5 surface of a radiation body to generate a radiation energy;

a first exhaust duct in lower parts of, and to pass through spaces between the front burner housings, and between the rear burner housings in communication with the front burner housings, for discharging exhaust gas from the front radiation burners toward the exhaust openings; and

10 a second exhaust duct, inside of, and separate from the first exhaust duct in communication with the rear burner housings.

9. The exhaust system as claimed in claim 8, further comprising a partition wall at a central part of the first exhaust duct, to divide the first exhaust duct into two parts, 15 one of which is in communication with the front burner housing on a left side, and the other one of which is in communication with the front burner housing on a right side.

10. The exhaust system as claimed in claim 8 or 9, further comprising a partition wall at a central part of the second exhaust duct, to divide the second exhaust 20 duct into two parts, one of which is in communication with the rear burner housing on a left side, and the other one of which is in communication with the rear burner housing on a right side.

11. The exhaust system as claimed in claim 8, wherein the second exhaust duct 25 has a sectional area smaller than 1/2 of a sectional area of the first exhaust duct.

12. An exhaust system in a radiation gas range comprising:

- a housing having exhaust openings in a rear part for discharge of exhaust gas;
- a sheet of glass on top of the housing for transmission of radiant heat to a
- 5 heating object placed thereon;
- two front, and rear burner housings in contact with a bottom surface of the sheet of glass for forming spaces to burn mixed gas therein;
- two front radiation gas burners, and two rear radiation gas burners in lower parts of the front, and rear burner housings respectively each for burning mixed gas at a
- 10 surface of a radiation body to generate a radiation energy;
- a central exhaust duct between lower parts of, and in communication with the front burner housings, for guiding exhaust gas from the front radiation gas burners to the exhaust openings;
- a partition wall at a central part of the central exhaust duct for dividing the
- 15 central exhaust duct into two parts, one of which is in communication with the front burner housing on a left side, and the other one of which is in communication with the front burner housing on a right side; and
- two rear exhaust ducts in communication with rear parts of the rear burner housings individually, for discharging exhaust gas from the front radiation gas burners
- 20 and the rear radiation gas burners toward the exhaust openings.

13. An exhaust system in a radiation gas range comprising:

- a housing having exhaust openings in a rear part for discharge of exhaust gas;
- a sheet of glass on top of the housing for transmission of radiant heat to a
- 25 heating object placed thereon;

front and rear burner housings in contact with a bottom surface of the sheet of glass for forming spaces to burn mixed gas therein;

5 front radiation gas burners in lower parts of the front burner housings respectively each for burning mixed gas at a surface of a radiation body to generate a radiation energy;

32 rear radiation gas burners in lower parts of the front burner housings respectively each for burning mixed gas at a surface of a radiation body to generate a radiation energy; and

10 an exhaust duct formed to adjoin to a bottom of the sheet of glass, in communication with one side part of each of the front and/or rear burner housings for discharging exhaust gas from the front, and rear radiation burners toward the exhaust openings.

14. The exhaust system as claimed in claim 13, wherein two sets of each of the 15 front, and rear burner housings, and the front, and rear radiation gas burners are provided, and the exhaust duct is arranged at a central part of the housing to pass between the front radiation gas burners and between the rear radiation gas burners.

15. The exhaust system as claimed in claim 14, further comprising a partition 20 wall at a central part of the exhaust duct, to divide the exhaust duct into two parts, one of which is in communication with the front burner housing and the rear burner housing on a left side, and the other one of which is in communication with the front burner housing and the rear burner housing on a right side.

25 16. The exhaust system as claimed in claim 14, wherein the exhaust duct

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includes two separate exhaust ducts of a left exhaust duct in communication with the front burner housing and the rear burner housing on a left side, and a right exhaust duct in communication with the front burner housing and the rear burner housing on a right side.

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17. The exhaust system as claimed in claim 13, wherein the exhaust duct includes;

a first exhaust duct in communication with the front burner housings, and
a second exhaust duct inside of, and separate from the first exhaust duct in
10 communication with the rear burner housings.

18. An exhaust system in a radiation gas range comprising:
a housing having exhaust openings in a rear part for discharge of exhaust gas;
a sheet of glass on top of the housing for transmission of radiant heat to a
15 heating object placed thereon;

two front, and rear burner housings in contact with a bottom surface of the sheet
of glass for forming spaces to burn mixed gas therein;
two front radiation gas burners in lower parts of the front burner housings
respectively each for burning mixed gas at a surface of a radiation body to generate a
20 radiation energy;

two rear radiation gas burners in lower parts of the rear burner housings
respectively each for burning mixed gas at a surface of a radiation body to generate a
radiation energy;

a central exhaust duct formed at a central part of the housing to adjoin to a
25 bottom of the sheet of glass, and to pass between the front burner housings, and between

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the rear burner housings, and in communication with one side part of each of the front burner housings, for guiding exhaust gas from the front radiation gas burners to the exhaust openings; and

two rear exhaust ducts on both sides of a rear part of the central duct in
5 communication with rear parts of the rear burner housings individually, for discharging exhaust gas from the rear radiation gas burners toward the exhaust openings.

19. The exhaust system as claimed in claim 18, further comprising a partition wall at a central part of the central exhaust duct to divide the central exhaust duct into
10 two parts of which one part is in communication with the front burner housing on a left side, and the other part is in communication with the front burner housing on a right side.